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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L STREET NW
WASHINGTON, DC 20037-1526

EXAMINER
FOX, CHARLES A

ART UNIT	PAPER NUMBER
3652	

DATE MAILED: 10/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,619	GRIFFIN, AMY R.	
	Examiner	Art Unit	
	Charles A. Fox	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-46 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-46 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 29 June 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Drawings

This application has been filed with informal drawings which are acceptable for preliminary examination purposes only. Formal drawings are required in response to this office action.

The drawings are objected to because figure 1 is a photograph of poor quality and should be made into a line drawing.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As claim 11 is dependent upon itself it is not possible to define the scope of the claim, making the claim indefinite. As such claim 11 has not been treated on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Smillie, III.

In regards to claims 1 and 13 Smillie, III US 4,725183 discloses an apparatus for positioning an object comprising:

a first section or (25) having a lift mechanism (55) capable of movement in a vertical direction;

a second section (41) disposed over said lifting mechanism (55) capable of moving in a corresponding manner to the lifting mechanism, said second section (41) having a sliding mechanism (42) capable of movement in a first horizontal direction;

a third section (28) disposed over said sliding mechanism (42) capable of moving in response to movement of said sliding mechanism and said lifting mechanism, said third section also has a surface for supporting an object.

In regards to claims 2 and 14 Smillie, III further discloses that the lifting mechanism comprises a jacking screw mechanism (52,58).

Claims 35,39,40 and 41 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Beach. In regards to claims 35 and 41 Beach US 2,931,519 discloses the method of positioning an object, comprising the steps of:

providing a table having a base section (14), a middle section and a support section (60) adapted to move vertically and horizontally;

placing an object (L) on said support section;

moving said table to a desired destination for said object;

operating a provided lift mechanism to move said support section vertically;

operating a provided slide mechanism to move said support section horizontally;

said object being positioned in a desired location by said moving and operational steps.

In regards to claims 39 and 45 beach further discloses the steps of operating the slide mechanism comprises manually rotating a shaft attached to a lead screw.

In regards to claims 40 and 46 Beach further discloses the step of moving the table comprises rolling said table utilizing wheels (18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5,6,17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III as applied to claims 1 and 13 above, and further in view of Beach. In regards to claims 5 and 17 Smillie, III teaches the limitations of claims 1 and 13 as above, he does not teach a lead screw mechanism for moving the sliding portion. Beach US 2,931,519 teaches a lift mechanism with a slide portion, wherein the slide portion is moved by a screw (110) and a block (111) attached to the sliding portion. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Smillie, III with a device for accurately positioning the

slide mechanism as taught by Beach in order to move the slide in a controlled manner for exact placement of the object being moved by the apparatus.

In regards to claims 6 and 18 Smillie, III further teaches sliding portion as having slider blocks (36) and slide rails (43). See figure 5.

Claims 3,7,15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III as applied to claims 1 and 13 above, and further in view of Stone. Smillie, III teaches the limitations of claims 1 and 13 as above, he does not teach the lifting mechanism as being pneumatic. Stone US 5,299,906 teaches a lifting device that is driven by a gas cylinder assembly (34) and has a pressurized gas source (r). It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the lifting apparatus taught by Smillie, III with a compressed gas assembly as taught by Stone in order to allow the lift to operate under a source of power that is readily accessible in a number of industrial settings that requires no special knowledge to hook up or unhook as may be needed during operation of the apparatus.

Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III as applied to claims 1 and 13 above, and further in view of Mills et al. Smillie, III teaches the limitations of claims 1 and 13 as above, he does not teach the device as having a jack screw and a pneumatic lift mechanism. Mill et al. US 4,461,455 teaches a lift mechanism that comprises a jacking screw assembly (64,66,68, and 70) as well as a pneumatic lift assembly (120,122,124, and 126) for lifting a load. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Smillie, III with a dual lift system as taught by Mills et al. in order to

allow the apparatus to align the object being moved with its target area without potentially crushing the object being moved.

Claims 3,7,15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III as applied to claims 1 and 13 above, and further in view of Shiiba et al. Smillie, III teaches the limitations of claims 1 and 13 as above, he does not teach the lifting device as being actuated by pressurized gas. Shiiba et al. US 4,643,630 teaches a lifting device with an actuator (7) that is moved by a source of pressurized gas. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide a gas lift mechanism as taught by Shiiba et al. for the device taught by Smillie, III as compressed gas lifting cylinders are well known in the art.

Claims 8,9,10,20,21,22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III as applied to claim 1 and 13 above, and further in view of Miller. In regards to claims 8,9,20, and 21 Smillie, III teaches the limitations of claims 1and 13 as above, he does not teach using hydraulic cylinders as the lift actuators. Miller US 3,524,556 teaches a lift device (10) with hydraulic cylinders (20-23) that are connected to a source of hydraulic fluid. See column 3 lines 56-61. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Smillie, III with hydraulic lift actuators as taught by Miller so as to align the load on the platform with its intended target area with relative ease.

In regards to claims 10,22 and 23 Smillie, III teaches the limitations of claim 1 as above, he does not teach the apparatus as having wheels. Miller teaches his lifting device as having castors (17) that swivel in all directions allowing the lifting device to be

pushed in any direction. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Smillie, III with castors as taught by Miller in order to allow the device to be positioned near the location the object on the device is to be mounted.

Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III as applied to claims 1 and 13 above, and further in view of Ueda et al. Smillie, III teaches the limitations of claims 1 and 13 as above, he does not teach a second slide mechanism for moving said object in a second horizontal direction.

Ueda et al. US 5,023,534 teach a device for moving an object with a load platform that is movable in two perpendicular horizontal directions. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the directional capabilities taught by Ueda et al. to the apparatus taught by Smillie, III in order to allow the load platform to be positioned in a precise manner.

Claims 25,26,30,32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III in view of Miller. In regards to claim 25 Smillie, III teaches an apparatus comprising:

a mechanism for lifting and lowering an object in a vertical direction;

a separate mechanism for sliding said object in a horizontal direction.

Smillie, III does not teach the apparatus as having wheels. Miller teaches a lifting apparatus with wheels that allow the device to move in any desired direction. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide

the apparatus taught by Smillie, III with wheels as taught by Miller in order to make the device easier to move between locations of use.

In regards to claim 26 Smillie, III further discloses that the lifting mechanism comprises a jacking screw mechanism (52,58).

In regards to claim 30 Smillie, III further teaches sliding portion as having slider blocks (36) and slide rails (43).

In regards to claims 32 and 33 Miller also teaches the lift device (10) as having hydraulic cylinders (20-23) that are connected to a source of hydraulic fluid. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Smillie, III with hydraulic lift actuators as taught by Miller as hydraulic actuators are well known in the art as lifting mechanisms.

Claims 27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III in view of Miller as applied to claim 25 above, and further in view of Shiiba et al. Smillie, III in view of Miller teaches the limitations of claim 25 as above, he does not teach the lifting device as being actuated by pressurized gas. Shiiba et al. teaches a lifting device with an actuator (7) that is moved by a source of pressurized gas. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide a gas lift mechanism as taught by Shiiba et al. for the device taught by Smillie, III as compressed gas lifting cylinders, screw jacks and hydraulic cylinders are all well known as being equivalent to one another.

Claims 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III in view of Miller as applied to claim 25 above, and further in view of Mills et al. Smillie,

III in view of Miller teaches the limitations of claim 25 as above, they do not teach the device as having a jack screw and a pneumatic lift mechanism. Mill et al. teaches a lift mechanism that comprises a jacking screw assembly (64,66,68, and 70) as well as a pneumatic lift assembly (120,122,124, and 126) for lifting a load. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Smillie, III in view of Miller with a dual lift system as taught by Mills et al. in order to allow the apparatus to align the object being moved with its target area in a precise manner.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smillie, III in view of Miller as applied to claim 25 above, and further in view of Beach. Smillie, III in view of Miller teaches the limitations of claim 25 as above, he does not teach a lead screw mechanism for moving the sliding portion. Beach teaches a lift mechanism with a slide portion, wherein the slide portion is moved by a screw (110) and a block (111) attached to the sliding portion. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Smillie, III as modified by Miller with a device for accurately positioning the slide mechanism as taught by Beach in order to move the slide in a controlled manner for exact placement of the object being moved by the apparatus.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al. in view of Beach. Mills et al. teach an apparatus for positioning an object comprising :

a support frame (24);

wheels mounted on said frame for rolling the apparatus in a first direction;

a lifting and lowering mechanism over said frame, comprising:

at least 4 jacking screws (64,66,68,70);

a transmission system for operation of said screws, see figure 2;

at least two gas cylinders (120,122,124,126);

a source of pressurized gas.

Mills et al. do not teach the apparatus as having a plate with a sliding member connected to the lifting mechanisms. Beach teaches a lifting apparatus comprising:

a support frame (14);

wheels on said support frame;

a lifting mechanism (12);

a first plate (11) connected to said lifting mechanism;

a sliding mechanism having a block (111) and a screw (110);

a second plate (106) attached to said block such that said sliding mechanism, said lifting mechanism, and the rolling of said wheels imparts motion to said second plate, said second late having a surface for supporting an object.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide a sliding plate as taught by Beach on the apparatus as taught by Mills et al. in order to allow the device to position the object being moved in a horizontal direction very accurately by using the ball screw mechanism once the apparatus is rolled into place.

Claim 36 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach as applied to claims 35 and 41 above and further in view of Nemoto. Beach teaches the limitations of claims 35 and 41 as above, he does not teach the lift mechanism as being manually operated. Nemoto US 6,271,657 teaches an apparatus for positioning test heads where the step of actuating a lift mechanism comprises manually rotating an input shaft attached to the jacking mechanisms. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the methods of moving an object taught by Beach with the manual input steps taught by Nemoto in order to allow the apparatus to operate independently of any power source, thereby allowing the apparatus to work where no immediate power source is available.

Claims 37 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach as applied to claims 35 and 41 above, and further in view of Shiiba et al. Beach teaches the limitations of claims 35 and 41 as above, he does not teach the lift mechanism as being pneumatically actuated. Shiiba et al. teaches a lift device whose operation comprises the step of supplying a pressurized gas to a gas cylinder assembly. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the step of operating the lift mechanism taught by Beach by providing gas to the actuation system as taught by Shiiba et al. in order to make use of a readily available source of power that requires no special knowledge to tap into and use.

Claims 38 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach as applied to claims 35 and 41 above, and further in view of Mills et al. and further in view of Nemoto. Beach teaches the limitations of claims 35 and 41 as above,

he does not teach the step of rotating a rod to actuate the jacking mechanism or supplying a pressurized gas to cylinder assemblies. Mills et al. teaches the step of supplying a pressurized gas to cylinders to position a load. It would have been obvious to modify the methods taught by Beach by adding the step of supplying pressurized gas as taught by Mills et al. in order to orient the object being moved in a more controlled manner.

Nemoto teaches the step of raising a load by manually rotating a shaft to impart movement to a lift mechanism. It would have been obvious to one of ordinary skill in the art, at the time of invention to further modify the methods taught by Beach in view of Mills et al. with the manual methods taught by Nemoto in order to position the object vertically with a high degree of accuracy that is difficult to obtain from a pneumatic or hydraulic system.

The prior art made of record and not relied upon, but considered pertinent to applicant's disclosure is: Legrand et al. (1983), Irie (1986), Pipes (1987), Ochs (1990) and Tozawa et al. (1996).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 703-605-4294. The examiner can normally be reached between 7:00-4:30 Monday-Thursday and on alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 703-308-3248. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

CAF
September 25, 2002

Kathy Matecki

KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600